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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/014,381   | 10/26/2001  | Robert J. Davis      | SM10861P1670US      | 1088             |
| 32116  | 7590        | 11/25/2003           | EXAMINER            |                  |
| WOOD, PHILLIPS, KATZ, CLARK & MORTIMER<br>500 W. MADISON STREET<br>SUITE 3800<br>CHICAGO, IL 60661 |             |                      | KIM, SUN U          |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1723                |                  |

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

|                              |                               |                              |  |
|------------------------------|-------------------------------|------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/014,381 | Applicant(s)<br>DAVIS ET AL. |  |
|                              | Examiner<br>John Kim          | Art Unit<br>1723             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 October 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-20 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \*   c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>020802</u> . | 6) <input type="checkbox"/> Other:  |

1. Information disclosure statement submitted on 2/8/02 have been considered by the examiner.
2. Examiner noted that the residence of applicants in application data sheet and oath are different. Applicants are requested to correct this discrepancy.
3. Claim 10 is objected to because of the following informalities: "particle extraction area" should be corrected to "particle collection area". Appropriate correction is required.
4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 16 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Recitation of "said outlet flume" in claims 16 and 18 lacks a positive antecedent basis.
6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:  
  
A person shall be entitled to a patent unless --  
  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
7. Claims 1-5, 7-9, 11-15 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,767,532 (hereinafter referred to as Weis '532). Weis '532 teaches an apparatus for removing grits e.g. solid particles from liquid comprising a substantially round shell (22) having a tangential inlet and a tangential outlet wherein an inlet is a point of liquid entry into the shell (22) and an outlet is a point of exit into outlet flume (52) inside the shell (22) and the outlet is elevated from the inlet and the outlet flume (52) has a floor (55)

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overhanging a portion of particle extraction area comprised of floor (13) and a particle collection area is located centrally of the particle extraction area having a central opening (15) for removing grits (see figures 1-5; col. 2, line 61 – col. 3, line 4; col. 3, lines 22-68; col. 4, line 19 – col. 5, line 59) (claims 1-3, 7, 11-13, 17). Weis '532 teaches an inlet flume (41) extending upstream from the inlet and penetrating the rounded shell (22) and having a bottom substantially at a same elevation as a bottom of the particle extraction area (13) (see figure 4) (claims 4, 14). Weis '532 teaches a baffle (45) in the round shell (22) extended from the inlet flume (41) to form an inherent tunnel extending into the particle extraction area (13) (see figures 1, 4) (claims 5, 15). Weis '532 teaches an outlet opening having a bottom floor (55) located at an elevation substantially at a mid elevation of the rounded shell (22) (see figures 1, 4) (claims 8, 18). Weis '532 teaches an inlet tunnel formed by a baffle (45) and floor (13) and a top plate which is a bottom floor (55) located at an elevation substantially at a mid elevation of the rounded shell (22) (see figures 1, 4) (claims 9, 19).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weis '532. Weis '532 teaches the apparatus for removing grits e.g. solid particles from liquid as described in above paragraph 7. Claims 10 and 20 essentially differ from the apparatus of Weis '532 in reciting that a bottom floor of the round shell slopes toward the particle collection area. Weis '532 teaches that solid particles are carried near the floor (13) and urged around the floor

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and radially inwardly where they drop through a central opening (15) and pass into a grit storage chamber (12) (see col. 4, lines 56-60). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a sloping bottom floor toward a centrally located particle collection area in the apparatus of Weis '532 to facilitate the movement of solid particles to the collection area by gravity.

10. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claim 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kim whose telephone number is (703) 308-2350. The examiner can normally be reached on weekdays from 7:00 AM - 3:00 PM.

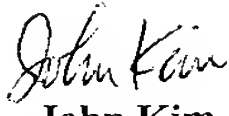
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (703) 308-0457. The fax phone number for official response is (703) 872-9306.

When sending a draft amendment by fax, please mark the paper as "DRAFT"; otherwise, mark the paper "OFFICIAL". This will expedite the processing of the paper.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

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**John Kim**  
**Primary Examiner**  
**Art Unit 1723**

J. Kim  
November 18, 2003